

## ABSTRACT

A system for accessing the brain of a subject to record and/or stimulate brain states thereof. The system includes control means, first accessing means having a plurality of contact surfaces configured to operatively connect the control means to the brain of the subject to provide three-dimensional stimulation thereof; second accessing means having a plurality of contact surfaces to operatively connect the control means to the brain of the subject to provide access thereto for the purposes of obtaining three-dimensional recordings of the brain electrical activity of the subject; and a waveform bank containing a plurality of stimulating waveforms. The control means is configured to operatively apply a first at least one of the stimulating waveforms of the waveform bank to the brain of the subject through the first accessing means and to assess acceptability within defined limits, as determined by preset criteria, of the subject's response to the application of the at first least one of the stimulating waveforms.